

[illegible]

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LLLLLLLLLL IIIII
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```
0000 1      .TITLE LOCKDN - LOCK FCP INTO REAL MEMORY
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5 :*****
0000 6 :*
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0000 23 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 24 :*
0000 25 :*
0000 26 :*****
0000 27
0000 28 :++
0000 29
0000 30 : FACILITY: F11ACP STRUCTURE LEVEL 1
0000 31
0000 32 : ABSTRACT:
0000 33
0000 34 :     THIS ROUTINE TOUCHES ALL OF THE PAGES IN FCP TO BRING THEM
0000 35 :     INTO REAL MEMORY.
0000 36
0000 37 : ENVIRONMENT:
0000 38
0000 39 :     STARLET OPERATING SYSTEM, INCLUDING PRIVILEGED SYSTEM SERVICES
0000 40 :     AND INTERNAL EXEC ROUTINE.
0000 41
0000 42 : AUTHOR: ANDREW C. GOLDSTEIN, CREATION DATE: 22-DEC-1976 14:46
0000 43
0000 44 : MODIFIED BY:
0000 45
0000 46 :     B0100 ACG00001 Andrew C. Goldstein, 10-Oct-1978 20:01
0000 47 :     Previous revision history moved to [F11B.SRC]F11B.REV
0000 48 :**
0000 49
0000 50
0000 51 : DEFINE LABELS FOR THE START AND END OF THE LOCKED DOWN AREAS
0000 52
00000000 53 : .PSECT $LOCKEDC0$,NOWRT,PAGE
0000 54 LCODE_START:
0000 55
00000000 56 : .PSECT $LOCKEDC9$,NOWRT, LONG
0000 57 LCODE_END:
```

```
0000 58
00000000 59 .PSECT $LOCKEDD0$,NOEXE, LONG
0000 60 LDATA_START:
0000 61
00000000 62 .PSECT $LOCKEDD9$,NOEXE, LONG
0000 63 LDATA_END:
0000 64
00000000 65 .PSECT $LOCKEDD1$,NOEXE, LONG
0000 66 ;
0000 67 ; OWN STORAGE:
0000 68 ;
00000004 0000 69 WORKING_SET: .BLKL 1 ; SPACE TO RECEIVE WORKING SET SIZE
00000046 0004 70 SET_SIZE:: .LONG 70 ; SIZE TO ADJUST WORKING SET TO
00000010 0008 71 LAST_PAGE: .BLKL 2 ; SPACE TO RECEIVE LAST PAGE POINTERS
0010 72
0010 73 ;
0010 74 ; DESCRIPTORS TO LOCK DOWN THE CODE AND DATA AREAS THAT ARE TO BE LOCKED INTO
0010 75 ; THE WORKING SET
0010 76 ;
00000000 77 .PSECT $CODE$,NOWRT, LONG
0000 78
FFFFFFFF'00000000' 0000 79 LOCKED_CODE: .LONG LCODE_START,LCODE_END-1
FFFFFFFF'00000000' 0008 80 LOCKED_DATA: .LONG LDATA_START,LDATA_END-1
```



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0010 82 :++
0010 83 :
0010 84 : FUNCTIONAL DESCRIPTION:
0010 85 :
0010 86 :     THIS ROUTINE TOUCHES ALL OF THE PAGES IN FCP TO BRING THEM
0010 87 :     INTO REAL MEMORY.
0010 88 :
0010 89 : CALLING SEQUENCE:
0010 90 :     CALL LOCKDOWN ( )
0010 91 :     NONE
0010 92 :
0010 93 : INPUT PARAMETERS:
0010 94 :     NONE
0010 95 :
0010 96 : IMPLICIT INPUTS:
0010 97 :     NONE
0010 98 :
0010 99 : OUTPUT PARAMETERS:
0010 100 :     NONE
0010 101 :
0010 102 : IMPLICIT OUTPUTS:
0010 103 :     NONE
0010 104 :
0010 105 : ROUTINE VALUE:
0010 106 :     NONE
0010 107 :
0010 108 : SIDE EFFECTS:
0010 109 :     ALL OF FCP RESIDING IN REAL MEMORY
0010 110 :
0010 111 :--
0010 112 :
0000 0010 113 : LOCKDOWN::
0010 114 :     .WORD    ^M<>
0012 115 :
0012 116 :     ADJUST THE WORKING SET SIZE TO A SUITABLE VALUE
0012 117 :
0012 118 :     $ADJWSL_S  #0,W^WORKING_SET      ; READ CURRENT SIZE
50 0004'CF 0000'CF C3 001F 119 :     SUBL3      W^WORKING_SET,W^SET_SIZE,R0 ; COMPUTE INCREMENT
0027 120 :     $ADJWSL_S  R0,W^WORKING_SET      ; AND SET TO DESIRED SIZE
0034 121 :
0034 122 :     LOCK INTO THE WORKING SET THE CODE AND DATA AREAS THAT SHOULD BE.
0034 123 :
0034 124 :     $LKWSET_S  LOCKED_CODE
0042 125 :     $LKWSET_S  LOCKED_DATA
0050 126 :
0050 127 :     EXPAND THE PROGRAM REGION BY ONE PAGE TO GET THE ADDRESS OF THE TOP.
0050 128 :     THIS PAGE WILL NEVER BE TOUCHED AND WILL THEREFORE REMAIN DEMAND ZERO.
0050 129 :
0050 130 :     $EXPREG_S  #1,LAST_PAGE,REGION=#0
0063 131 :
0063 132 :     NOW TOUCH ALL PAGES UP TO THE ONE CREATED.
0063 133 :
0063 134 :     MOVAB      @#^X200,R0          ; START WITH PAGE 1
50 00000200 9F 9E 0063 135 10$:     TSTL      (R0)                ; TOUCH IT
006A 136 :     ACBL      LAST_PAGE,#^X200,R0,10$ ; NEXT PAGE AND LOOP
006C 137 :
0078 :
007A :     RET
```


- LOCK FCP INTO REAL MEMORY

C 3

```
15-SEP-1984 23:44:02 VAX/VMS Macro V04-00
5-SEP-1984 01:13:31 [F11X.SRC]LOCKDN.MAR;1
```

Page 4
(2)

007B	138
007B	139
007B	140
007B	141

.END

LOCK
V04-

.....

LOCKDN
Symbol table

- LOCK FCP INTO REAL MEMORY

D 3

15-SEP-1984 23:44:02 VAX/VMS Macro V04-00
5-SEP-1984 01:13:31 [F11X.SRC]LOCKDN.MAR;1

Page 5
(2)

\$ST1 = 00000000
ACL_TYPE = 00000007
AOB_TYPE = 00000005
BITMAP_TYPE = 00000001
CACHE_TYPE = 00000006
CHIP_TYPE = 00000008
DATA_TYPE = 00000004
DIRECTORY_TYPE = 00000002
FCB_TYPE = 00000000
HEADER_TYPE = 00000000
INDEX_TYPE = 00000003
LAST_PAGE = 00000008 R 05
LCODE_END = 00000000 R R 02
LCODE_START = 00000000 R R 01
LDATA_END = 00000000 R 04
LDATA_START = 00000000 R 03
LOCKDOWN = 00000010 RG 06
LOCKED_CODE = 00000000 R 06
LOCKED_DATA = 00000008 R 06
MVL_TYPE = 00000004
QUOTA_TYPE = 00000005
RVT_TYPE = 00000003
SET_SIZE = 00000004 RG 05
SYS\$ADJWSL = ***** GX 06
SYS\$EXPREG = ***** GX 06
SYS\$LKWSET = ***** GX 06
VCB_TYPE = 00000002
WCB_TYPE = 00000001
WORKING_SET = 00000000 R 05

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
ABS	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
\$LOCKEDC0\$	00000000 (0.)	01 (1.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC PAGE
\$LOCKEDC9\$	00000000 (0.)	02 (2.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC LONG
\$LOCKEDD0\$	00000000 (0.)	03 (3.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
\$LOCKEDD9\$	00000000 (0.)	04 (4.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
\$LOCKEDD1\$	00000010 (16.)	05 (5.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
\$CODE\$	0000007B (123.)	06 (6.)	NOPIC USR CON REL LCL NOSHR EXE RD NOWRT NOVEC LONG

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.09	00:00:01.22
Command processing	113	00:00:00.67	00:00:02.92
Pass 1	121	00:00:01.00	00:00:03.25
Symbol table sort	0	00:00:00.02	00:00:00.02
Pass 2	40	00:00:00.55	00:00:01.23
Symbol table output	4	00:00:00.03	00:00:00.04
Psect synopsis output	2	00:00:00.04	00:00:00.05

MACRO/LIS=LIS\$:LOCKDN/OBJ=OBJ\$:LOCKDN MSRC\$:FCPPRE/UPDATE=(ENH\$:FCPPRE)+MSRC\$:LOCKDN/UPDATE=(ENH\$:LOCKDN)+EXECMLS/LIB

0171 AH-BT13A-SE
VAX/VMS V4.0

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